

# Novice to Know-How Module Text

## Course 6: Preserving Digital Content

# Module 3: Talking to IT

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## 1. Why is Talking with IT Important?

Due to the variety of skills needed to carry out the full range of digital preservation processes, a collaborative approach, with colleagues from different areas of our organization is desirable.

As we are operating in the digital realm, a good working relationship with colleagues in the Information Technology (IT) department is perhaps the most significant connection to make. Alternatively, it can be one of the greatest barriers if we do not manage to persuade them of the importance of digital preservation. In this module we will explore why issues can occur, what we can do to address them, and what steps to take to get IT colleagues engaged with the problem.

## 2. Different Ways of Working.

One of the first barriers we face when making contact with colleagues in IT is that digital preservation may require them to consider problems and to work in very different ways than they are used to.

Most IT work is very much focused on the "now":

- How can we fix the problem that has just occurred?
- How can we provide required services? (e.g. storage or access)
- How can we improve this system to increase efficiency, reduce costs, and align processes?

Digital preservation differs as it requires us to consider:

- The past – how the content was created
- The present – the processes we need to put in place to manage content now
- The future – how can we ensure the digital content remains accessible

This shift in perspective may result in some resistance and issues with guarding territory when first presented, but there are steps we can take to ease the process and engage our IT colleagues.

### 3. Differences in Terminology.

Another problem that often arises when first working with colleagues in the IT department is in relation to terminology. When discussing requirements for digital preservation we may find that we both use different terms for the same thing, or indeed, the same word to mean different things.

As an example, when we use the word "archive", we mean something completely different from IT professionals, for whom this describes a specific process of bundling up content, e.g. emails, and moving it to different storage, often offline. "Long-term" is also likely to be interpreted differently, they may understand this as 5 years, when we, in fact, mean 20....

### 4. Administrative Permissions.

If we are working on digital preservation from within a larger organization, we may also find barriers due to controls on what we can do with hardware and software.

Most IT departments will impose strict limits on who has the administrative permissions to make changes to computer set-ups, including installing new software. This can make it difficult to experiment with new tools and workflows, requiring permissions from, and set-up by IT colleagues each time we wish to make a change. Some organizations also have restrictions on what type of software we can use, with some only using vendor solutions, while others prioritize open source.

Therefore, it is useful to negotiate with IT colleagues to have these restrictions relaxed where possible. Perhaps on our ingest workstation. We may also need to advocate for particular tools if they sit out with the types of software allowed according to existing IT policy.

### 5. Steps to Take.

Bearing in mind the potential obstacles, it is worthwhile being prepared when first approaching colleagues in the IT department to discuss digital preservation.

A first step may be selecting a model (e.g. 3-Legged Stool or OAIS), maturity model (e.g. DPC RAM or the NDSA Levels of Preservation), or audit standard (e.g. CoreTrustSeal) to act as a framework that can underpin discussions. A maturity model is generally the best option as they allow for benchmarking of progress over time.

Next, try to familiarize yourself with relevant IT policies and programs, as well as broader organizational aims, so you are prepared to show where digital preservation will fit into the bigger picture.

Then, think about the best communication method for engaging colleagues from the IT department. Many find a collaborative working group to be useful, bringing them and other interested stakeholders together to work on digital preservation as a shared problem.

Framing digital preservation as a novel problem that will take innovative solutions can help improve engagement from colleagues who may normally be limited to routine issues. This

can be digital preservation in the broadest sense, or smaller challenges they can find solutions for, e.g. "I need to be able to move 500 files, and know nothing has changed".

Having a key ally in the IT department can also be use be a great advantage. They can help champion the digital preservation cause from within the department. You may be identify someone from the working group to fill this role.

Remember to be confident in your own abilities, while you may still feel like a beginner you will almost certainly be the person who knows most about digital preservation!

On the next few slides we will look in more detail at some work you can do to help with these steps.

## 6. Develop a Shared Vocabulary.

As mentioned earlier, issues with terminology can be a barrier to communicating with colleagues from IT. Try to establish a shared vocabulary for discussing digital preservation issues.

We may need to be the ones to take the first steps, learning some key information technology terms. Those relating to networks and storage can be particularly useful. Scott Prater, a Digital Library Analyst at the University of Wisconsin, has written a useful paper on these issues that provides definitions of some key terms. A link is included in the course resources. There are also useful introductory IT courses on platforms such as Coursera.

Leading on from this, the resource we selected as a framework for our digital preservation efforts, be it model, maturity model, or audit standard, can be used as the source of terms for a shared vocabulary.

## 7. Questions for Us.

We should be prepared to answer IT colleagues' questions about our digital preservation needs where possible. In his article, Scott Prater sets out some key questions to consider ahead of time. They are paraphrased here:

- How much storage will we need and what will it be used for? This might be much more than they currently manage!
- How much data will be getting processed? Consider both size (e.g. GB, TB etc.) and number of files.
- How do we see this growing over time?
- At what speed do we need to provide access? e.g. do we need it available instantly or is some level of delay acceptable?
- What access provisions need to be made? Particularly in reference to permissions.
- What will the processing workflows be like?
- What are our requirements for integrity checking?

We can use guidance like The National Archives (UK) workflows (see Introduction to Workflows module) to help find answers.

## 8. Questions for IT.

We may also wish to prepare our own questions for IT colleagues, to help with our planning of digital preservation policy, procedure, processes. Again, paraphrased from Scott Prater's article:

- What are the different storage options? And what are the pros and cons of each?
- How much will various technology requirements cost?
- What is the current back-up strategy?
- Are there currently any service-level agreements in place with relevant providers? e.g. for cloud storage.
- What documentation do they maintain that may be useful for future audit of the digital preservation program?

## 9. Module Wrap-Up.

Engaging IT colleagues in digital preservation is an essential step. Avoiding an "us and them" mentality is the most important thing. We might at first face problems around working methods and terminology, but these are not insurmountable problems and there are key steps we can take to address these issues. Going into conversations with IT with an open mind and a curiosity to find out more will help. Do not be afraid to tell them that you don't understand or ask them to explain things in a less technical way.

We need to be clear on the framework we will use to underpin our work. We should take steps to understand the work of IT colleagues and the terminology they use. We should be prepared to answer their questions and pose our own. And, ultimately, we should aim for the creation of a digital preservation working group so that we can bring IT colleagues together with other stakeholders to work on the problems we face.